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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,043	02/07/2001	A. Clifton Lilly JR.	021238-330	6209

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EXAMINER
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LOPEZ, CARLOS N

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

**Office Action Summary**

Application No.

09/778,043

Applicant(s)

LILLY ET AL.

Examiner

Carlos Lopez

Art Unit

1731

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,3-5, 7-13,16-20,23-32,34, rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a cigarette filter comprising intermetallic compounds or reagents, does not reasonably provide enablement for a filter as recited in the claims whose scope does not only encompass cigarette filters but general filters such as car filter and or air mask filters. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and used the invention commensurate in scope with these claims. The specification is drawn to a specific type of filter, cigarette filter. However, the above claims encompass non-cigarette filter for which applicant has no support of nor provides enablement for using the claimed "filter" for filtering non-tobacco smoke.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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1) Claims 1-2, 4, 8, 10, 30, 35, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Derwent Abstract 1233957 A. Abstract 1233957 A provides for metal or metal alloys having a high conductivity, such as Al, Cu, Ag or bronze in the form of powder, fibres, flakes or turnings are included in the filter paper to increase filtration efficiency of the smoke or aerosols. .

As for claims 20-22, the claimed method is performed by Heim's cigarette.

2) Claims 33-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Wennerberg (US 4,656,153). Wennerberg discloses using any transitional metal or combinations thereof supported on a porous carbon (reading on Applicant's claims 26 and 30-31) (Column 7, lines 14-20) may be used as a gas filter (which reads on Applicants claims 1, 13, and 20) (Column 1, lines 14-17 and Examples 5-6).. Additionally, since Wennerberg teaches of adding combinations of metals selected from iron and aluminum (See Col. 7 lines 14-21), it is considered that combinations of said metals is considered a "metal reagent".

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3) Claims 3,5-7,9,11-29,31-34,36, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derwent Abstract 1233957 A. Abstract 1233957 A provides for metal or metal alloys having a high conductivity, such as Al, Cu, Ag or bronze in the form of powder, fibres, flakes or turnings are included in the filter paper to increase filtration efficiency of the smoke or aerosols. It would be obvious to a person of ordinary skill in the art that filter having the claimed catalyst system as disclosed by Abstract 1233957 and claimed by applicant is capable of functioning as recited in the method claims. The claimed passing a gaseous stream with a filter as disclosed by Abstract 1233957 is met when the smoker inhales to smoke the cigarette.

In regards to claims 3,5,12,16, 20,21,23,25, and 29, the metal alloys are capable of filtering the claimed smoke constituents of cigarette smoke.

As for claims 6-7, 14-15, 22, 28, 32, and 34, the paper filter are conventionally used in a free-flow filter or as a liner of an interior hollow tubular member wherein cellulose acetate fibers or propylene fibers are used as the paper fibers.

As for claim 9, 19, 26, 27,33, the additional claimed support materials are known in the art as shown in by Wennerberg (US 4,656,153 Col. 1, lines 14-20) and would be obvious to a person of ordinary skill in the art to be capable of supporting the alloy catalyst of Abstract 1233957. Additionally as for claim 33, it would be obvious to one of ordinary skill in the art to have provided silica or zeolites large enough to support the alloy catalyst.

As for claim 11, high heat conductive alloys as encompasses the claimed alloys.

As for claims 36, 38 and 40, cigarette filters are conventionally attached to tobacco rods by a tipping paper (see the previously cited patents in PTO-892).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is (703) 605-1174. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



PETER CHIN  
PRIMARY EXAMINER